
APPENDIX C.2

WILDLIFE INVENTORY REPORT

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FOR THE

TEHACHAPI EAST AFTERBAY PROJECT

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California Department of Water Resources

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1. LOCATION

The proposed east afterbay (proposed project) site is located near the base of the south slope of the Tehachapi Mountains in southwestern Kern County near the Los Angeles County line at an elevation of approximately 3,300 feet above sea level. The proposed site is approximately 7.6 air miles northeast of the intersection of Interstate 5 and State Highway 138. The proposed project site is located on private property owned by Tejon Ranch Company.

2. METHODS

The California Natural Diversity Data Base (CNDDB) was consulted for the La Liebre and Lebec quads prior to conducting fieldwork (CDFG, 2003). The database results were combined with the results of wildlife surveys completed southwest of the proposed project site in 2001 (GLA, 2001) and 2003 (Aspen, 2003) for a previous project alternative, and the biologist's knowledge of the region to assemble a list of special-status wildlife species known to occur in the vicinity of the proposed project site. The area that would be occupied by the proposed reservoir site, spoil piles (Spoil #1 and Spoil #2), and inlet/outlet structures connecting the proposed project site to the California Aqueduct were visited on the following dates: 6 April 2004 (0945 hrs to 1430 hrs), 18 May 2004 (1100 hrs to 1600 hrs), and 26 May 2004 (1030 hrs to 1545 hrs). Air temperatures ranged between 61° F and 78° F, with clear to partly cloudy skies and consistent, 20-30 mph winds from the northwest during the survey periods. Surveys on 6 April and part of 18 May consisted of walking transects spaced approximately 150 feet apart over at least 90 to 95 percent of the proposed project site. Surveys on 18 May and 26 May focused on adjacent areas that would be affected by construction and access extending up to 2,000 feet west and north of the proposed project site. Foot and vehicular surveys of the unnamed drainage also were conducted on 26 May 2004. Species presence was based on direct observations, as well as observations of sign (scat, tracks, burrows, etc.). In addition to the proposed sites for the reservoir and primary spoil pile (Spoil #1), adjacent areas surveyed included an unnamed north-south trending drainage to within 1,000 feet of the base of the Tehachapi Mountains (a linear distance of approximately two miles), uplands west of the unnamed drainage westward to Little Sycamore Canyon streambed, and portions of the floodplain of the unnamed drainage south of the proposed project site. All natural water sources encountered were dip-netted for amphibian larvae. Terminology of scientific and common names follows Stebbins (2003) for amphibians and reptiles, National Geographic (1999) for birds, and Ingles (1965) for mammals.

3. EXISTING CONDITIONS

The proposed project site is located primarily on a flat upland area just north of a broad alluvial plain of originating from the unnamed drainage and immediately east of the existing Tehachapi Afterbay segment of the California Aqueduct. The southern limit of the construction area is proposed to extend onto the floodplain. The dominant wildlife habitat type in the project area is non-native grassland. Rabbit brush scrub was likely the historic dominant habitat type and scattered patches of this habitat type persist, mainly associated with the floodplain of the unnamed drainage. Both the proposed reservoir site and the soil stockpile site appear to have been farmed within the past 5 to 10 years and have been grazed by sheep and cattle within the past year. Vegetative cover in the project area ranged between 75 percent and 85 percent cover, with ground cover consisting primarily of filaree (*Erodium* sp.) (70 percent cover), non-native annual grasses (5 percent cover), rabbit brush (5 percent cover), mustard (15 percent cover), and miscellaneous forbs and wildflowers (5 percent cover). Shrub cover consisted almost entirely of common rabbit brush (*Chrysothamnus nauseosus*). No shrubs exceeded two feet in height. Rodent burrows were not observed within the proposed reservoir and primary spoil pile

sites as defined in project maps provided by the California Department of Water Resources (CDWR) in March 2004. Burrows were commonly observed however, in adjacent floodplain and unfarmed grasslands north and west of the project area, including the vertical-walled gullies associated with the floodplain of the unnamed drainage. The paucity of burrows in the proposed project area appears to be due to past agricultural practices that change the density of the soil and vegetation cover.

Soils in the proposed project site vary, in some areas exhibiting greater clay content, but are generally friable consisting mainly of coarse sand and silt, whereas the floodplain of the unnamed drainage, particularly that portion south of the proposed soil stockpile area, is composed almost entirely of coarse sand and fine gravel. Appendix C-1 addresses the relationship between vegetation, soil and water availability. Generally, grazing and farming have compacted the soil and interrupted the natural hydrology responsible for providing inputs of alluvium along the drainages, and for providing moisture for plants. The result has generally been a loss of woody cover (i.e., trees and shrubs dependent on well-drained soils with shallow groundwater). A visual indicator of this is the density of rabbitbrush, which is greater at the base of the erosional gullies where there are greater alluvial and colluvial deposits. These changes to soil and vegetation in turn, limit the diversity and abundance of wildlife, especially mammals and some reptiles, which depend on overstory vegetation for cover.

The U-shaped channel of the unnamed drainage contained surface water approximately 1-6 inches deep for at least 75 percent of its surveyed length at the time of the site visit. The source of the water was a broken irrigation pipe that exited beneath an east-west trending dirt road approximately 1.1 miles north of the project area. The drainage north of this road was dry at the time of the 26 May survey. An approximately 2,000 square foot stock pond was located at the northern end of the surveyed reach of this drainage. Dominant vegetation in the wetted portions of this drainage consisted of rushes (*Juncus* sp.) and sedges (*Cyperus* sp.). Several small, vertical-walled ravines dissected the sides of this drainage as well as the southern edge of the upland terrace located along the northern side of the floodplain. Large portions of the side slopes of this drainage, particularly those portions north of the east-west dirt road, supported extensive patches of native, perennial bunchgrass (*Nassella* sp.). This road is located approximately 1100 feet north of the project construction limit.

In general, the proposed project area appears to have been substantially disturbed by agriculture in the recent past. Succession from ruderal grassland to a mixture of grassland and rabbitbrush scrub is occurring now that the land is currently fallow and periodic grazing maintains this area in the current successional stage. The surveyed areas north of the east-west dirt road are separated from areas to the south by a barbed wire fence and do not appear to have been farmed.

4. SPECIAL-STATUS AND GENERAL WILDLIFE OBSERVATIONS

Tables 1 and 2 list 142 species of amphibians, reptiles, birds, and mammals that were either: (a) observed within and adjacent to the project area during the site visit on 6 April 2004 or, (b) are expected to occur within or adjacent to the project area because suitable habitat is present and it is known from within a 10-mile radius of the project area. Typically occurrences within 1 mile are considered in environmental documents, but given that this site is proximate to an important wildlife corridor and that a 1-mile limit would imply that the wildlife within this area has been well documented over time, which is not the case, a larger area was considered. Table 1 identifies special status species that are species listed as fully protected by the California Department of Fish and Game (CDFG), and List 1B and List 2 plants considered by the California Native Plant Society (CNPS) to be rare, threatened or endangered in California and beyond. Table 2 lists all other wildlife that occurs or may potentially occur within the project area. Mammals that may occur in the project area were identified on the basis of dispersal ability and presence of suitable habitat in the project area. These species and

their potential for occurrence on the project site are discussed in Tables 1 and 2. (Bolded entries in the tables represent species observed during the site visits on 6 April 2004, 18 May 2004, and 26 May 2004.)

4.1 Fully Protected and Listed Species

Six species included in Table 1 are considered Fully Protected by the State of California and/or are listed as threatened or endangered by the U.S. Fish and Wildlife Service. These are: California condor (*Gymnogyps californianus*), golden eagle (*Aquila chrysaetos*), Swainson's hawk (*Buteo swainsoni*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), willow flycatcher (*Empidonax traillii* subsp.), and San Joaquin kit fox (*Vulpes macrotis mutica*). The western yellow-billed cuckoo, willow flycatcher, and San Joaquin kit fox are known from within a 10-mile radius of the project area, but are either restricted to the San Joaquin Valley (kit fox) or are very unlikely to occur in the project area because of lack of suitable habitat (riparian woodland/riparian scrub for yellow-billed cuckoo and western flycatcher is absent from the site, but present approximately 1.25 miles southwest) (see comments in Table 1). The remaining species have some potential or are known to occur in the project area. These are discussed in some detail in the following species accounts.

California condor (*Gymnogyps californianus*)

State/Federal Status: Endangered/Endangered

California condors forage over an extensive area encompassing hundreds to thousands of square miles. There are several historic and recent sightings of condors roosting and foraging in the Tehachapi Mountains and adjacent valleys, including an historic record from the vicinity of Neenach, located approximately five air miles NE of the project area. The project area is part of an extensive area of previously farmed and grazed grasslands that may continue to provide suitable foraging habitat for this species. The U.S. Fish and Wildlife Service, which closely monitors condor movements, maintains specific information on the foraging patterns of condors that may include the proposed project area.

Golden eagle (*Aquila chrysaetos*)

State/Federal Status: Fully Protected/Species of Concern

Golden eagles are routinely observed in the Tehachapi Mountains and adjacent valleys, including the project area (Hunt, pers. observ., 2004), but were not observed during the surveys completed for this report. The project area provides suitable foraging habitat for eagles, but does not contain nesting habitat. The project area is easily accessible to eagles nesting in the Tehachapi Mountains, Liebre Mountain, and Sawmill Mountain.

Swainson's hawk (*Buteo swainsoni*)

State/Federal Status: Threatened/None

The project area and adjacent grasslands represent good to excellent winter foraging habitat for Swainson's hawks. The closest breeding records for this species are in the Central Valley. The area proposed for the reservoir and spoil pile(s) provide little roosting habitat, but Little Sycamore Canyon, located approximately one mile west of the project area, contains moderate to excellent roosting habitat.

4.2 Other Special-Status Species Found in the Project Area

Table 1 lists 30 other wildlife taxa that have state and/or federal regulatory status. Three of these special-status species that were observed in the project area during surveys for this report are discussed

below. Habitat use of the project area by potentially occurring special-status species is discussed in Table 1.

Burrowing owl (*Athene cunicularia*)

State/Federal Status: Species of Special Concern/None

Three pellets composed entirely of insect remains were found at two locations on 26 May 2004: (a) one pellet was found on an earth berm along the southeast side of a large stock pond situated in the unnamed drainage approximately 1,000 feet north of the east-west dirt road, and; (b) three pellets were found at the entrance to two suitable roosting/nesting burrows located on the east-facing slope of same drainage approximately 400 feet north of the dirt road and near a fence and potential burrow at the same road where it crosses the unnamed drainage. California ground squirrels have formed a colony in this portion of the drainage and several burrows occur in the vicinity of this site. In each case, the pellets were intact and firm, indicating relatively recent deposition. However, the burrows associated with these pellets showed no signs of active owl occupation. The project area provides moderate- to excellent quality foraging habitat for burrowing owls. No burrows were observed within or adjacent to the upland portions of the project area where the proposed reservoir is to be located. Suitable-sized burrows appear to be restricted to the sloping sides of the ravines in the project area, in close association with California ground squirrels.

Coast horned lizard (*Phrynosoma coronatum*)

State/Federal Status: Species of Special Concern/Species of Concern

Scat was found at two locations on 18 May 2004 associated with small clumps of native scrub vegetation in unnamed ravine that borders east side of Afterbay chute. Soils in this drainage are composed of coarse sand and small gravel. The southern portions of the unnamed drainage, as well as the floodplain south of the proposed spoil pile (Spoil #1) appear to provide good to excellent habitat for horned lizards.

Loggerhead shrike (*Lanius ludovicianus*)

State/Federal Status: Species of Special Concern/None

A family group, consisting of an adult male and female and two fledglings, were observed foraging in a narrow windrow of tamarisk and mule-fat in the unnamed drainage immediately east of the aqueduct on 18 May 2004. It is likely that this species nests in trees associated with this unnamed drainage and forages in the project area.

California horned lark (*Eremophila alpestris actia*)

State/Federal Status: Species of Special Concern/None

The California horned lark prefer open terrain where they construct nests on the ground, often in sparsely vegetated areas. Highest nesting densities are generally found in annual grassland and oak savannah habitats in the foothill regions. The bird was common throughout the project area and a nest with eggs was observed in the northern part of the project area.

5. CONCLUSIONS

- a. The proposed project area lies within an ecological transition zone between coastal and desert faunal regions. Consequently, the project region supports a broad diversity of wildlife species, including a number of special-status species. The site visits for this report likely detected only a subset of the full range of wildlife that uses the proposed project area on a seasonal or

permanent basis. Pre-construction surveys, conducted at appropriate times of the year, will more fully determine seasonal habitat use of the project area by special-status species.

- b. The proposed sites for the reservoir and the spoil piles, however, are on land that has already been altered by former agricultural activity and grazing. Impacts to soil and vegetation limit the habitat resources provided by these areas.
- c. The ravines in and adjacent to the proposed project area originating from the Tehachapi Mountains are important features that contribute significantly to the overall wildlife diversity in this area, especially those ravines that contain water for part or all of the year.
- d. The unnamed drainage and the floodplain south of the proposed spoil pile (Spoil #1) are important regional habitat features that allow many species of wildlife to persist in this area, including special-status species.

6. REFERENCES

- Aspen (Aspen Environmental Group). 2003. Wildlife surveys completed for the Tehachapi Second Afterbay. Submitted to DWR, Glendale.
- CDFG (California Department of Fish and Game). 2003. Special Animals List. California Natural Diversity Database. The Resources Agency, Wildlife and Habitat Data Analysis Branch, Sacramento, CA. 32 pp.
- GLA (Glenn Lukos Associates Regulatory Services). Results of a Habitat Assessment Conducted for the Quail Lake and the Tehachapi Afterbay Enlargement Area. Submitted to DWR, Glendale.
- Hill, Holly. 2004. Personal communication from Holly Hill, Impact Sciences, regarding the occurrence of sensitive wildlife species in the vicinity of the proposed project site.
- Hunt, Larry. 2004. Observations recorded by Larry Hung (Hunt & Associates Biological Consulting Services) during other wildlife surveys completed in the region.
- Ingles, L. G. 1965. Mammals of the Pacific States. Stanford Univ. Press, Stanford, CA. 506pp.
- National Geographic Society. 1999. Field Guide to the Birds of North America. 3d ed. National Geographic Society. 480 pp.
- Stebbins, R.C. 2003. A Field Guide to Western Reptiles and Amphibians. 3d ed. Houghton Mifflin, Boston. 533 pp.

Table 1. Special Status Vertebrates Observed or Expected to Occur within or near the Proposed Project Area*

Scientific Name	Common Name	State/Federal Status	Comments
PLANTS (2 species)			
<i>Fremontodendron mexicanum</i>	Mexican flannel bush	CNPS List 1B/FE	Not present, unsuitable soil conditions, generally not present at this elevation.
<i>Erodium macrophyllum</i>	round-leaved filaree	CNPS List 2/None	Present in foothills to the north of the proposed project area.
PLANT COMMUNITIES (3 communities)			
Southern cottonwood willow riparian Forest	N/A	State ranked as a threatened plant community	Present within the Oso Creek drainage southwest of the project site.
Valley needlegrass grassland	N/A	State ranked as a threatened plant community	Identified north of the project area, in foothills relatively unaffected by dry farming and less affected by grazing
Valley oak woodland	N/A	State ranked as a threatened plant community	Not present within or near the proposed project area.
AMPHIBIANS (1 species)			
<i>Scaphiopus hammondi</i>	western spadefoot	CSC/None	May occur in and near the unnamed drainage; stock ponds at the section line fence north or the proposed reservoir site provide potential breeding habitat
REPTILES (4 species)			
<i>Phrynosoma coronatum</i>	coast horned lizard	CSC/FSC	Scat observed at two locations in unnamed drainage bordering east side of aqueduct; not likely to occur on proposed reservoir site because of past farming practices do not maintain friable or shallow sandy soils and adequate vegetation cover, but may occur in open grassland and scrub elsewhere in project area
<i>Salvadora hexalepis virgulata</i>	coast patch-nosed snake	CSC/None	May occur in patches of scrub associated with floodplain of the unnamed drainage; not expected to occur in grassland in proposed reservoir or borrow sites
<i>Anniella pulchra pulchra</i>	silvery legless lizard	CSC/FSC	May occur in sandy soils associated with scrub habitats in floodplain and adjacent banks of the unnamed drainage
<i>Thamnophis hammondi</i>	two-striped garter snake	CSC/None	May occur in freshwater marsh habitats and stock pond associated with the unnamed drainage; has recently been found by Impact Sciences around vernal pools approx. seven air miles SW of project area (H. Hill, pers. comm., 2004)

Scientific Name	Common Name	State/Federal Status	Comments
BIRDS (20 species)			
<i>Athene cunicularia</i>	burrowing owl	CSC/FSC	Project area provides foraging habitat, but no suitable nesting or roosting habitat observed in area
<i>Bucephala albeola</i>	bullhead	CSC/None	Aqueduct, observed during 2003 surveys
<i>Plegadis chihi</i>	white-faced ibis	CSC/None	Aqueduct
<i>Gymnogyps californianus</i>	California condor	SE/FE	Project area provides marginal foraging habitat for this species, but nearest known roost and nest sites are over 10 miles from project area.
<i>Accipiter cooperi</i>	Cooper's hawk	CSC/None	Trees in upper part of unnamed drainage may provide suitable nesting habitat; may forage over project area
<i>Accipiter striatus</i>	sharp-shinned hawk	CSC/None	Trees in upper part of unnamed drainage may provide suitable nesting habitat; may forage over project area during winter
<i>Aquila chrysaetos</i>	golden eagle	CFP, CSC/FSC	Project area provides foraging habitat for eagles that may nest in adjacent mountains
<i>Buteo regalis</i>	ferruginous hawk	CSC/FSC	Project area provides suitable foraging habitat for winter transients
<i>Buteo swainsoni</i>	Swainson's hawk	ST/None	Potential winter transient to project area; trees in Oso Creek, Little Sycamore Canyon to the west, and elsewhere provide suitable roosting habitat
<i>Circus cyaneus</i>	northern harrier	CSC/None	May forage in project area; trees in Oso Creek, Little Sycamore Canyon to the west, and elsewhere provide suitable roosting habitat
<i>Falco mexicanus</i>	prairie falcon	CSC/None	Project area provides foraging habitat for falcons that may nest in adjacent mountains
<i>Numenius americanus</i>	long-billed curlew	CSC/FSC	Project area provides suitable foraging and roosting habitat for wintering birds
<i>Charadrius montanus</i>	mountain plover	CSC/None	Idem
<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	SE/FE	This species was observed in 2002 in riparian woodland approximately five air miles southwest of the proposed project site by biologists with Impact Sciences during biological surveys for the Tejon Ranch Company (Holly Hill, pers. comm., 2004). It was again observed by Impact Sciences staff accompanying Aspen biologists in 2003 approximately 1.25 miles southwest of the project site in riparian habitat of the Oso Creek Drainage (Aspen, 2003). It was not observed in or around the project area during surveys for this report. It is highly unlikely that this species would be present in the project area because of the absence of riparian vegetation, which persists only as narrow windrows of tamarisk and small, isolated clumps of willow and mule-fat in the unnamed drainage.
<i>Empidonax traillii</i>	willow flycatcher	SE/FE	This species (subspecies identity unknown) was observed in riparian woodland approximately 1.25 miles southwest of the proposed project area by Aspen biologists in 2003 during biological surveys for a different project alternative (Aspen, 2003). It was not observed in or around the project area during surveys for this report. Moreover, it is highly unlikely that it would be present here because of the absence of riparian vegetation, which is present here only as narrow windrows of tamarisk and small, isolated clumps of willow and mule-fat in the unnamed drainage.
<i>Lanius ludovicianus</i>	loggerhead shrike	CSC/None	Family group of four, pair of adults and two fledglings observed in project area, nesting location unknown.
<i>Eremophila alpestris actia</i>	California horned lark	CSC/None	Commonly observed throughout project area during site visits

Scientific Name	Common Name	State/Federal Status	Comments
<i>Amphispiza belli belli</i>	Bell's sage sparrow	CSC/FSC	Project area provides marginal-to moderate-quality foraging habitat and marginal nesting habitat for this species; known from sites only a few miles SW of project area (Hunt, pers. observ., 2004)
<i>Chondestes grammacus</i>	lark sparrow	None/FSC	Commonly observed throughout project area during 6 April site visit
<i>Agelaius tricolor</i>	Tricolored blackbird	CSC/FSC	May forage in project area from known breeding sites several miles west and southwest. (Hunt, pers. observ., 2004)
MAMMALS (11 species)			
<i>Antrozous pallidus</i>	pallid bat	CSC/FSC	May forage over project area; no roosting habitat in project area but present in Little Sycamore Canyon to the west
<i>Corynorhinus townsendii</i>	big-eared bat	CSC/FSC	Idem
<i>Myotis thysanodes</i>	fringed myotis	CSC/FSC	Idem
<i>Myotis yumanensis</i>	Yuma myotis	CSC/FSC	Idem
<i>Myotis ciliolabrum</i>	small-footed myotis	CSC/FSC	Idem
<i>Myotis volans</i>	long-legged myotis	CSC/FSC	Idem
<i>Lasiurus blossevillii</i>	western red bat	CSC/None	Idem
<i>Perognathus alticola inexpectatus</i>	Tehachapi pocket mouse	CSC/None	Unlikely; soils located in the proposed reservoir and borrow areas are friable enough for burrowing mammals, however, the dominant vegetation in the proposed project area is non-native annual grassland, whereas this species has only been found in scrub habitats, and the reservoir and borrow area sites appear to have been extensively farmed in the past,
<i>Onychomys torridus</i>	southern grasshopper mouse	None/FSC	May occur in grassland in project area
<i>Taxidea taxus</i>	American badger	CSC/None	May forage in project area; no dens observed in project area
<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	ST/FE	Known geographic range extends only to southern floor of San Joaquin Valley around foothills of north-facing slopes of Tehachapi Mountains; not known south or east of this mountain range

SE = State Endangered; ST = State Threatened; CFP = California Fully Protected by CDFG statutes; CSC = California Species of Special Concern; FSC = Federal Species of Concern (watch list species) by the U.S. Fish and Wildlife Service and/or Bureau of Land Management; FE = Federally listed as Endangered; FT= Federally listed as Threatened; CNPS List 1B: rare, threatened or endangered in California and elsewhere; CNPS List 2: rare or endangered in California, but more common elsewhere.

* **Bolded entries represent species observed during the site visits on 6 April 2004, 18 May 2004, and 26 May 2004.**

Table 2. Other Vertebrates Observed or Expected to Occur within or near the Proposed Project Area*

Scientific Name	Common Name	Comments
AMPHIBIANS (2 species)		
<i>Bufo boreas</i>	western toad	Thousands of larvae and a 20-foot long string of eggs found in pools in unnamed tributary of the unnamed drainage adjacent to and northwest of proposed inlet/outlet structures to the existing aqueduct.
<i>Hyla regilla</i>	Pacific treefrog	Expected to occur in unnamed drainage
REPTILES (17 species)		
<i>Cnemidophorus tigris</i>	western whiptail	Expected to occur in scrub and sparse grassland associated with floodplain of the unnamed drainage
<i>Elgaria multicarinata</i>	southern alligator lizard	May occur in the unnamed drainage
<i>Eumeces gilberti</i>	Gilbert's skink	May occur in scrub and sparse grassland associated with scrub in floodplain of the unnamed drainage; not expected to occur on proposed reservoir or borrow sites
<i>Gambelia wislizenii</i>	long-nosed leopard lizard	Expected to occur in patches of rabbitbrush scrub and sparse grassland
<i>Sceloporus graciosus</i>	western sagebrush lizard	Expected to occur in sparse grassland and scrub within and adjacent to project area
<i>Sceloporus occidentalis</i>	western fence lizard	Found at several locations in grassland and scrub within and along top of bank of unnamed drainage and on proposed reservoir and borrow sites
<i>Uta stansburiana</i>	side-blotched lizard	Found at several locations in grassland and scrub within and along top of bank of unnamed drainage and on proposed reservoir and borrow sites
<i>Arizona elegans</i>	glossy snake	Expected to occur in grassland and scrub habitats throughout project area
<i>Coluber constrictor</i>	racer	Expected to occur in grassland and scrub habitats throughout project area
<i>Crotalus scutulatus</i> (tentative)	Mojave rattlesnake	Species not positively identified because only a portion of snake seen in pipe east-southeast of existing Afterbay chute at top of bank of west side of unnamed tributary; if <i>C. scutulatus</i> , then this record may extend the geographic range of this species westward; known from the Antelope Valley
<i>Diadophis punctatus</i>	ringneck snake	May occur in mesic areas associated with unnamed drainage
<i>Lampropeltis getulus</i>	common kingsnake	Expected to occur in grassland and scrub habitats throughout project area
<i>Leptotyphlops humilis</i>	western blind snake	May occur loose, sandy soils associated with scrub habitats in floodplain and adjacent banks of unnamed drainage
<i>Masticophis flagellum</i>	coachwhip	Expected to occur in grassland and scrub habitats throughout project area
<i>Pituophis melanoleucus</i>	gopher snake	Expected to occur in grassland and scrub habitats throughout project area
<i>Rhinocheilus lecontei</i>	long-nosed snake	May occur in grassland and scrub habitats throughout project area
<i>Thamnophis sirtalis</i>	common garter snake	May occur in mesic habitats and adjacent grasslands associated with unnamed drainage
BIRDS (62 species)		
<i>Anas platyrhynchos</i>	mallard	Aqueduct
<i>Nycticorax nycticorax</i>	black-crowned night heron	Aqueduct, observed during 2003 survey
<i>Bucephala clangula</i>	common goldeneye	Idem
<i>Ardea herodias</i>	great blue heron	Idem
<i>Casmerodius albus</i>	great egret	Idem
<i>Podilymbus podiceps</i>	pied-billed grebe	Idem
<i>Egretta thula</i>	snowy egret	Idem
<i>Cathartes aura</i>	turkey vulture	Project area
<i>Buteo jamaicensis</i>	red-tailed hawk	Trees in unnamed drainage provide suitable roosting and nesting habitat; forages over project area
<i>Buteo lineatus</i>	red-shouldered hawk	Trees in unnamed drainage provide suitable roosting and nesting habitat; may forage over project area

Scientific Name	Common Name	Comments
<i>Falco sparverius</i>	American kestrel	Trees in unnamed drainage on provide suitable roosting and nesting habitat; likely forages over project area
<i>Callipepla californica</i>	California quail	Project area
<i>Colinus virginianus</i>	northern bobwhite	Project area
<i>Charadrius vociferus</i>	killdeer	Project area
<i>Sterna caspia</i>	Caspian tern	Aqueduct
<i>Zenaida macroura</i>	mourning dove	Project area
<i>Geococcyx californianus</i>	greater roadrunner	Probable in project area
<i>Tyto alba</i>	barn owl	Indirectly identified, likely burrow in gully on eastern side of unnamed drainage
<i>Bubo virginianus</i>	great horned owl	Probably forages over project area
<i>Chordeiles acutipennis</i>	lesser nighthawk	Probably forages over project area
<i>Phalaenoptilus nuttallii</i>	common poorwill	Probably forages and roosts in project area
<i>Aeronautes saxatilis</i>	white-throated swift	Probably forages in project area
<i>Sayornis nigricans</i>	black phoebe	May occur irregularly along aqueduct
<i>Myiarchus cinerascens</i>	ash-throated flycatcher	May occur irregularly along aqueduct and in unnamed drainage
<i>Tyrannus verticalis</i>	western kingbird	Project area
<i>Aphelocoma californica</i>	western scrub-jay	May occasionally forage over project area from roost and nest sites in unnamed drainage
<i>Corvus brachyrhynchos</i>	American crow	Project area
<i>Corvus corax</i>	common raven	Project area
<i>Tachycineta bicolor</i>	tree swallow	May occasionally forage over project area from roost and possible nest sites in unnamed drainage
<i>Tachycineta thalassina</i>	violet-green swallow	May occasionally forage over project area from roost and possible nest sites in unnamed drainage
<i>Hirundo pyrrhonota</i>	cliff swallow	Western edge of project area around gullies; may nest in unnamed drainage
<i>Stelgidopteryx serripennis</i>	northern rough-winged swallow	Project area; may nest in unnamed drainage
<i>Hirundo rustica</i>	barn swallow	Western edge of project area around gullies; may nest in unnamed drainage
<i>Sialia mexicana</i>	western bluebird	Expected to forage in project area; may nest in unnamed drainage
<i>Sialia currucoides</i>	mountain bluebird	Expected to forage in project area; may nest in unnamed drainage
<i>Mimus polyglottis</i>	northern mockingbird	Project area
<i>Sturnus vulgaris</i>	European starling	Project area
<i>Phainopepla nitens</i>	phainopepla	May forage in project area and nest in unnamed drainage
<i>Salpinctes obsoletus</i>	rock wren	Project area
<i>Dendroica auduboni</i>	Audubon's warbler	Project area
<i>Geothlypis trichas</i>	common yellowthroat	Project area
<i>Piranga ludoviciana</i>	western tanager	Potential casual visitor to project area; may breed in unnamed drainage
<i>Pipilo maculatus</i>	spotted towhee	May occasionally occur in unnamed drainage
<i>Spizella passerina</i>	chipping sparrow	May breed in project area
<i>Spizella breweri</i>	Brewer's sparrow	May breed in project area
<i>Spizella atrogularis</i>	black-chinned sparrow	May breed in project area
<i>Amphispiza bilineata</i>	black-throated sparrow	May breed in project area
<i>Melospiza lincolni</i>	Lincoln's sparrow	Potential winter visitor to project area
<i>Passerculus sandwichensis</i>	savannah sparrow	Common in project area during site visits
<i>Melospiza melodia</i>	song sparrow	Project area

Scientific Name	Common Name	Comments
Zonotrichia leucophrys	white-crowned sparrow	Project area
<i>Guiraca caerulea</i>	blue grosbeak	May forage in project area from possible breeding sites in unnamed drainage
<i>Passerina amoena</i>	lazuli bunting	May forage in project area from possible breeding sites in unnamed drainage
Sturnella neglecta	western meadowlark	Project area, nesting
<i>Agelaius phoeniceus</i>	red-winged blackbird	Likely forages in project area
Euphagus cyanocephalus	Brewer's blackbird	Project area
<i>Molothrus ater</i>	brown-headed cowbird	May forage in project area
<i>Icterus bullockii</i>	Bullock's oriole	May breed in project area from potential nest sites in unnamed drainage
<i>Carpodacus purpureus</i>	purple finch	May forage in project area in winter
Carpodacus mexicanus	house finch	Project area
<i>Carduelis tristis</i>	American goldfinch	Possible winter visitor to project area
<i>Carduelis psaltria</i>	lesser goldfinch	May forage in project area
<i>Passer domesticus</i>	English sparrow	May forage in project area
MAMMALS (23 species)		
<i>Didelphis virginianus</i>	Virginia opossum	May occur along aqueduct and unnamed drainage
<i>Sorex ornatus</i>	ornate shrew	May occur in unnamed drainage and in patches of scrub adjacent to project area
<i>Scapanus latimanus</i>	broad-handed mole	May occur in unnamed drainage
<i>Tadarida brasiliensis</i>	Mexican freetail bat	May forage over project area; no roosting habitat in project area
<i>Eptesicus fuscus</i>	big brown bat	May forage over project area; no roosting habitat in project area
<i>Pipistrellus hesperus</i>	western pipistrelle	May forage over project area; no roosting habitat
<i>Lepus californicus</i>	black-tailed hare	Expected to occur throughout project area
Sylvilagus bachmani	brush rabbit (cottontail)	Observed in Oso Creek drainage near aqueduct during 2003 survey
Sylvilagus audubonii	desert cottontail	Scat found at widely scattered locations in project area
Spermophilus beecheyi	California ground squirrel	Burrows observed in unnamed drainage
Thomomys bottae	Botta's pocket gopher	Skulls found in owl pellets in side ravine off unnamed drainage
Perognathus sp. (possibly californicus)	California pocket mouse	Skulls found in barn owl pellets in side ravine off unnamed drainage (tentative identification)
Dipodomys heermanni	Heermann's kangaroo rat	Skulls found in barn owl pellets in side ravine off unnamed drainage (tentative identification)
<i>Reithrodontomys megalotis</i>	harvest mouse	Expected to occur in project area
<i>Peromyscus truei</i>	pinyon mouse	Idem
<i>Peromyscus maniculatus</i>	deer mouse	Idem
<i>Neotoma lepida</i>	desert woodrat	May occur in ravine walls associated with floodplain of unnamed drainage
<i>Mephitis mephitis</i>	striped skunk	Expected to occur in project area
<i>Mustela frenata</i>	long-tailed weasel	Idem
<i>Procyon lotor psora</i>	raccoon	Idem
Canis latrans	coyote	Scat observed in project area
Felis rufus	bobcat	Tracks and scat observed in unnamed drainage
<i>Odocoileus hemionus</i>	black-tailed deer	Expected to occur in project area

* Bolded entries represent species observed during the site visits on 6 April 2004, 18 May 2004, and 26 May 2004.